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ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231



Re: U.S. Application  
Serial No: 09/220,055  
CPA Filed: 8-14-2000  
Group: 2834  
Inventor: Reinhard JOHO, et al.  
For: LAMINATED STATOR BODY FOR AN  
ELECTRICAL MACHINE



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SIR:

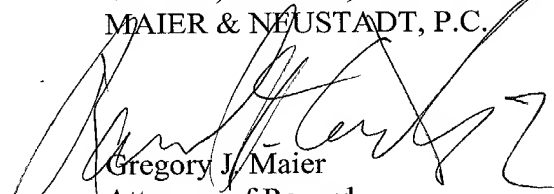
Attached hereto for filing are the following papers:

**REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. §1.116**  
**REQUEST FOR EXTENSION OF TIME (1 MONTH)**

Our check in the amount of **\$ 110.00** is attached covering any required fees. In the event that any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 CFR 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is attached.

Respectfully submitted,

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0107-0997-3

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF:

REINHARD JOHO ET AL.

SERIAL NO: 09/220,055 ✓



GROUP ART UNIT: 2834

CPA FILED: AUGUST 14, 2000

: EXAMINER: PEREZ, G.

FOR: LAMINATED STATOR BODY  
FOR AN ELECTRICAL MACHINE

TECHNOLOGY CENTER 2800

OCT 15 2001

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*21/Response  
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Shurman  
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REQUEST FOR RECONSIDERATION UNDER 37 CFR §1.116

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

Responsive to the outstanding Official Action mailed on June 6, 2001, please amend the above-identified application as follows:

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following.

Claims 1-15 are presented for examination in this application.

The outstanding Official Action includes a rejection of Claims 1 and 15 under 35 U.S.C. §103(a) as being unpatentable over Yoshihiko (JP 01-126141) in view of Mulach et al (U.S. Patent No. 4,494,030, Mulach) a rejection of Claims 2, 7, and 9 under 35 U.S.C. §103(a) as being unpatentable over Yoshihiko in view of Mulach and further in view of Hershberger (U.S. Patent No. 3,421,034), a rejection of Claims 3-6 under 35 U.S.C. §103(a) as being unpatentable over Yoshihiko in view of Mulach and Sacher (DE 195 10 729 A1),

and a rejection of Claims 8 and 10-14 under 35 U.S.C. §103(a) as being unpatentable over Yoshihiko in view of Mulach, Sacher and Hershberger.

YOSHIHIKO TEACHINGS HAVE BEEN IMPROPERLY EXPANDED

There is no teaching in Yoshihiko of selecting the number and depth of the notches 12 “to increase mechanical strength by reducing vibration amplitudes during machine operation” as erroneously stated at page 2 of the Action. In re Rijckaert, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) establishes that when the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference and that it is improper for the PTO to attempt to read non-existent teachings into a reference. Further note the following from In re Warner, 154 USPQ 173, 178 (CCPA 1967):

A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, all facts must be considered. The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.

Besides Yoshihiko lacking any teaching or suggestion of selecting the number and depth of the notches 12 “to increase mechanical strength by reducing vibration amplitudes during machine operation,” there is no teaching or suggestion as to having “segmental laminations” where the nature of a segmental lamination is clear from FIG. 1 with the illustration of an arcuate segment that encompasses far less than the 360° of Yoshihiko.

### THE PROPOSED COMBINATION LACKS ANY REASONABLE BASIS

Besides Yoshihiko lacking any teaching or suggestion of selecting the number and depth of the notches 12 “to increase mechanical strength by reducing vibration amplitudes during machine operation,” and any teaching or suggestion as to having “segmental laminations” or any reason for having a notch depth that is much less than the yoke height which is admitted to be lacking at the top of page 3, Mulach lacks any teachings or suggestions that are logically relevant to modifying the depth of the notches 12 of Yoshihiko.

In this respect, what Mulach teaches with respect to reference numeral 44 is that these elements are “typical partially circular holes 44 in which the building bolts will be disposed along with the circular holes 46 through which the through bolts will pass.” There is no similarity in purpose or design of these “typical partially circular holes 44 in which the building bolts will be disposed” and the notches 12 of Yoshihiko, because these notches 12 are not holes in which any “building bolts” or any conductor will be disposed. As noted at the bottom of page 2 of the outstanding Action, the relied upon FIG. 2 showing of Yoshihiko includes notches 12 “filled only with an atmosphere surrounding said laminated stator body,” not with a bolt or insulating cylinder around a bolt. The purpose and intended operation of the notches 12 Yoshihiko would be destroyed if they were provided as the partially circular bolt holes 44 with the conductive “building bolts” surrounded by the insulating cylinder taught by Mulach.

Any proposed modification requiring a change in the basic operating principle under which a reference performs is not an obvious modification. See In re Ratti, 123 USPQ 349, 352 (CCPA 1959). Also, any reference modification which would render the reference being modified unsatisfactory for its intended purpose has been held to not be obvious. See In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Since this proposed modification

would change the basic operating principle under which the stator and notches 12 of Yoshihiko would perform and would render these notches 12 unsatisfactory for their intended purpose, a proper reason for the proposed modification has not been set forth and no *prima facie* case of obviousness established.

Moreover, and as noted above, to the extent that Mulach teaches any insulating layer relative to the partially circular holes 44, this layer is formed as an "insulative cylinder" 30 that is around bolt 10 as shown in FIG. 4 and discussed at col. 5, lines 4-13. The logical reason why the artisan would use this teaching to replace the atmosphere filled slots 12 of Yoshihiko is lacking. This is contrary to established case law requiring the demonstration of a prior art incentive to modify the reference that must be logical and apparent from positive, concrete evidence of record. Note In re Regel, 188 USPQ 136, 139, n.5 (CCPA 1975).

Consequently, the rejection of Claims 1 and 15 under 35 U.S.C. §103(a) as being unpatentable over Yoshihiko in view of Mulach is traversed.

#### HERSHBERGER CURES NO DEFICIENCIES IN YOSHIHIKO OR MULACH

Applicants note that Hershberger is concerned with a stator for a single-phase induction electric motor. It is in such a machine that Hershberger suggests that at least two different coil groups are disposed in the slots with these coils arranged symmetrically about an axis to form a corresponding number of magnetic poles. Note col. 2, lines 44-49 of Hershberger. Hershberger also teaches that the stator yoke section at each pole will include magnetic restriction means which is clearly disclosed to be the elongated slot that must extend transversely across the yoke section "in association with a preselected coil accommodating slot spaced at a predetermined electric angle  $\theta$  from each coil group axis in the rotational direction of the revolvable member." See col. 2, lines 50-55. The purpose is

further disclosed to be to provide a high reluctance in the magnetic path of the quadrature axis flux to effect a phase shift in the flux components during starting conditions. See col. 2, lines 59-62 of Hershberger.

It is with consideration of this background that Hershberger suggests that slots 32 are to be provided so that the innermost portion 34 terminates adjacent to the center of a preselected slot. In addition, col. 5, lines 1-6 of Hershberger indicate that the enlargement of the end 34 is so that the very small magnetic bridge 37 that remains between each slot and each notch can be rapidly saturated while col. 5, lines 15-26 teach the filling of the notches with bonding material 38 to correct the weakness created by the slots that extend from the radial outside to almost the slots 17a themselves that leaves only the narrow magnetic bridge 37.

Accordingly, besides the fact that the attaining of desired rigidity characteristics for the core requires the bonding material 38 to be formed in the slots 32 after the laminations have been aligned, as disclosed at col. 5, lines 20-26 as noted above, it is clear that the slots must extend almost into engagement with the coil slots 17a and do not have any function of reducing the natural frequency of the laminated stator body and that the aim of slot ends has nothing to do with reduction of vibrations. Moreover, it would be clearly impossible to meet the design and operation goals of Hershberger without the provision of this bonding material 38 in each transverse notch 32 that extends almost into engagement with the winding slots 17a so as to leave at most a very narrow bridge portion 37 between the notches 32 and the slots 17a, all to improve starting performance as further noted at col. 5 lines 27-52 of Hershberger.

The embodiment of Figure 6 of Hershberger goes even further and requires the notches 32 to extend "entirely across the yoke section in direct communication with the

preselected coil slot 17a” and the use of bonding material 38 is clearly still required for strengthening the weakened core. See col. 7, lines 25-29 of Hershberger.

Finally, the reasonable basis to modify the partial circular holes bolt holding holes of Mulach to include the dimensions of the unrelated slots of Hershberger or the adding of relief openings 34 of Hershberger is completely lacking. As noted in Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985):

Presuming *arguendo* that the references show the elements or concepts urged by the examiner, the examiner has presented no line of reasoning, and we know of none, as to why the artisan viewing only the collected teachings of the references would have found it obvious to selectively pick and choose various elements and/or concepts from the several references relied on to arrive at the claimed invention. In the instant application, the examiner has done little more than cite references to show that one or more elements, or subcombinations thereof, when each is viewed in a vacuum, is known. The claimed invention, however, is clearly directed to a combination of elements. That is to say, appellant does not claim that he has invented one or more new elements, but has presented claims to a new combination of elements. To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

Consequently, the rejection of Claims 2, 7, and 9 under 35 U.S.C. §103(a) as being unpatentable over Yoshihiko in view of Mulach and further in view of Hershberger is also traversed.

#### SACHER CURES NO DEFICIENCIES IN THE OTHER REFERENCES

The outstanding Office Action relies upon teachings found in Sacher and argues that these teachings would be applied to the notches 12 of Yoshihiko modified by the teachings of Mulach as to “typical partially circular holes 44 in which the building bolts will be disposed.” The outstanding Action, however, once again ignores that the notches 12 of

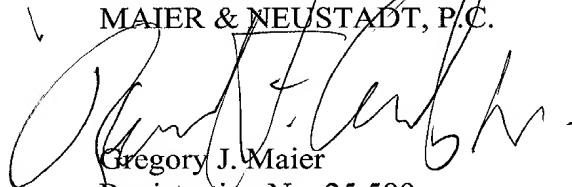
Yoshihiko are for an entirely different purpose in an entirely different machine relative to the notches such as 13 of Sacher that are provided in the stator of a DC machine to mechanically decouple poles. Moreover, the outstanding Action also ignores the entirely different purpose in an entirely different machine relative to the "typical partially circular holes 44 in which the building bolts will be disposed" of Mulach and the notches 13 of Sacher that are provided in the stator of a DC machine to mechanically decouple poles. The above noted quotation from Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985) is again believed to be relevant.

Consequently, the rejection of Claims 3-6 under 35 U.S.C. §103(a) as being unpatentable over Yoshihiko in view of Mulach and further in view of Sacher and that of Claims 8 and 10-14 under 35 U.S.C. §103(a) as being unpatentable over Yoshihiko in view of Mulach, Sacher, and Hershberger are also traversed.

As no further issues are believed to be outstanding in this application, it is respectfully submitted that this application is in condition for formal allowance and an early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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